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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,368	07/11/2001	William P. Tanguay	99545 (4254-15)	9563

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EXAMINER

POLK, SHARON A

ART UNIT PAPER NUMBER

2836

DATE MAILED: 07/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/903,368

Applicant(s)

TANGUAY, WILLIAM P.

Examiner

Sharon Polk

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-- Th MAILING DATE of this communication appears on th cover sh t with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4 and 12 is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-11, 13-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al., US 4,227,062 in view of Rulseh, US 3,992,960, and further in view of Silveri, US 6,007,693.

With regard to claims 1, and 9 Payne et al. teach:

a timer for controlling the activation of a load (10) during repeating cycles, the timer including:

a control unit (72) having an internal timer (148);

a relay unit connected between the control unit and the load, wherein the control unit activates the relay unit to supply power to the load (col. 10, lines 3-9);

a time base dial (34) coupled to the control unit, the time base dial movable between a plurality of discrete time base settings to set the duration for the repeating cycle in the control unit, and

a duty cycle dial (36) coupled to the control unit (fig. 5), the duty cycle dial movable between a plurality of discrete duty cycle settings to set the percentage of actuation time of the load during each repeating cycle in the control unit, (col. 6, lines 49-52).

Payne et al. teach the claimed invention except for the time base settings increase non-linearly from a minimum setting to a maximum setting. However, **Rulseh teaches** this feature (fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Payne et al. with the teaching of Rulseh for the purpose of providing a manual preset timer having a high constant speed timing range for short accurate timings, a low constant speed timing range for longer timings and an intermediate variable speed timing range connecting the two constant speed timing ranges (col. 1, lines 46-51).

Payne et al. as modified by Rulseh teach the claimed timer, but lack the *explicit* teaching of the user can select between the plurality of durations by moving the time base dial between the plurality of the time base settings, and that the user can select between the plurality of percentages by moving the duty cycle dial between the plurality of duty cycle settings, and further that the duration of the repeating cycle is selectable independently from the percentage of the actuation time of the load. These features is taught by Silveri (e.g., fig. 17a, 27:11-28). One skilled in the art at the time of the invention would have been motivated to modify the timer as by Payne et al. in view of Rulseh for the purpose of actuating the halogen generator at regular intervals throughout the day (27:9-10).

With regard to **claims 2, and 10**, Payne et al. teach that duty cycles increase linearly (col. 7, lines 1-6).

With regard to **claims 3, and 11**, Payne et al. teach the claimed invention except for the duty cycle settings increase non-linearly from a minimum setting to a maximum setting. However, Rulseh teaches non-linear timing (fig. 1).

With regard to **claims 5, and 13**, adding the limitation of the increase in value of the duty cycle, Payne et al. teach this feature (fig. 3).

With regard to **claims 6, and 14** official notice is taken that time setting markers can vary in range. As such, it is a matter of design choice based on what is being timed.

With regard to **claims 8, and 16**, adding the limitation of the increase in value of the time base, Payne et al. teach this feature (4a-4e).

Claims 7, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Payne et al., Rulseh, and Silveri as applied to claims 1, and 9 and further in view of Scalf, US 4,430,540.

With regard to **claims 7, and 15**, neither Payne et al., nor Rulseh, Silveri teach the claimed "time base dial." **Scalf teaches** this feature (abstract, fig. 12). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Payne et al. with the teachings of Scalf, for the purpose of providing an electronic which is economically competitive with electromechanical devices such as time motors while performing comparable or improved functions (col. 1, lines 60-64).

With regard to the 32 discrete settings, official notice is taken that the number of setting is a matter of design choice, as shown in Scalf's figures 2 and 4 for the purpose of providing a visual display of actual remaining time.

Allowable Subject Matter

3. Claims 4 and 12 are allowed. The following is an examiner's statement of reasons for allowance: The prior art of record does not teach or fairly suggest, having smaller increments near both the minimum and maximum settings and larger settings at the midpoint between the maximum and minimum settings in combination with the other recited elements of the claimed timer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication with the PTO

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharon Polk whose telephone number is 703-308-6257. The examiner can normally be reached on M-F 7-3:30.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 703-308-3119. The fax phone numbers for

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the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

sp
July 23, 2003



BRIAN SIRCUS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800